

Appl. No. 10/717,951

Docket No. XOGN002-01US

Filed: November 19, 2003

Amendment with RCE in Reply to Final Office Action of December 23, 2005

Remarks

This Amendment is accompanying a Request for Continued Examination (RCE) under 37 CFR 1.114, and is filed in response to the Final Office Action mailed December 23, 2005. A response to the Final Office Action is due March 23, 2006. Accordingly, this amendment is being timely filed.

Status of the Claims

Claims 1 – 4, 24 – 31, 33 – 35 and 45 – 48 are pending. Claims 1 – 4, 24 – 31, 33 – 35 and 45 – 48 are rejected.

Claim 1 has been amended. Claims 33 – 35 have been cancelled without prejudice or disclaimer. New claims 49 – 59 have been added. These are system claims in which the claimed method is to be used. Claim 1 has been amended to include the limitations of claim 33.

Claim 1 has also been amended to include the feature of disinfection of the waste stream. Support for this amendment is found at paragraphs 31, 40 and 44 of the instant application as originally filed. Paragraph 31 refers to Figure 2 and states “... *the treated waste stream is concurrently disinfected so that it meets regulatory and industry standards for effluent 218*”. Paragraph 40 refers to Figure 3 and states “...*a disinfection process 260 is either replaced or supplemented by an oxy-hydrogen gas generator GG2 interposed in the flow path of the treated waste stream, between final clarifier 250 and effluent outlet 258*”. Paragraph 44 refers to Figure 3 and 3B and states “*Utilization of an oxyhydrogen gas generator GG4 for stabilization may require a shorter time of residence than required in a conventional stabilization process 274 to kill or render innocuous an effective amount of pathogens*”.

No new matter has been added by way of these amendments or new claims.

Telephone Interview

Applicants wish to thank the Examiner for the telephone interview conducted on Jan. 26, 2006. The participants of this interview were Miriam Paton (Reg. #56,623), Mark Schisler, Herb Campbell and Angella Hughes. As indicated in the accompanying PTOL-413A form, claims 1, 33, 34 and 35 were discussed.

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At the interview, it was proposed to amend claim 1 by adding the limitations of claim 33. The Examiner agreed that claim 1 with this amendment would be novel over the prior art of record.

The Examiner also agreed that if properly stated, adding the feature of disinfection would be novel over the prior art of record, but that any such additions would need to be supported by the application as originally filed.

There was also a discussion of the obviousness rejection in the Final Office Action, system claims 34 and 35, and organic oxidation.

Claim Rejections under 35 USC 102

Claims 1, 4, 24, 31 and 45 – 47 are rejected under 35 USC 102(b) as being anticipated by Robert (EP 0748984). Claims 1 – 2, 24 – 28, 31 and 45 – 47 are rejected under 35 USC 102(b) as being anticipated by Wesley (US Patent No. 3,829,368). Claims 1 – 2, 29, 30, 34 – 35 and 48 are rejected under 35 USC 102(b) as being anticipated by Mehl (US Patent No. 3,523,891).

Claims 34 – 35 have been cancelled without prejudice or disclaimer, thus rendering the rejection of these claims moot.

Claim 1 as amended includes the limitations of claim 33. Therefore Robert, Wesley and Mehl do not anticipate claim 1 as amended.

Claims 2 – 4, 24 – 31 and 45 – 48 are dependent, directly or indirectly, from claim 1 and include all the limitations of the independent claim as amended. For at least these reasons, Robert, Wesley and Mehl do not anticipate claims 2 – 4, 24 – 31 and 45 – 48.

Claim Rejections under 35 USC 103

Claims 3 and 33 are rejected under 35 USC 103(a) as being unpatentable over either Wesley or Mehl. The rejection of claim 3 mentions also Jenks (U.S. Patent No. 2,882,210). The rejection of claim 33 mentions also Zucker (U.S. Patent No. 4,140,509) and Witt (U.S. Patent No. 5,549,812). Claims 29 – 30 and 48 are rejected under 35 USC 103(a) as being unpatentable over Wesley in view of Mehl.

Claim 33 has been cancelled without prejudice or disclaimer, thus rendering the rejection of this claim moot.

Claim 1 as amended recites *"submersing two or more closely spaced electrodes in the waste stream and supplying a pulsed electrical signal to at least one of the electrodes to produce the oxyhydrogen-rich gas"* and *"contacting at least a portion of the waste stream with at least a portion of the oxyhydrogen-rich gas to disinfect the waste stream"*.

Mehl mentions disinfection at column 2, line 18: "... bubbling ozone through these fluids to assist in flotation of the floc and to kill bacteria in the fluid materials, ...". However, it is clear that this treatment comes from the ozone added externally to the system with no suggestion that the gases generated by electrolysis are responsible for this treatment. To the inventors of the instant application, it is clear from column 7 of Mehl where the "OZONE PRODUCTION UNIT" is described that there is no intention to use the gases from electrolysis, as stated in this section "Ozone is produced in the ozone production unit 44 in conventional manner as by passing dry air between electrodes with a high voltage potential". In contrast, claim 1 as amended makes it clear that oxyhydrogen-rich gas is generated by electrodes submersed in the waste stream.

With regard to Zucker no mention is made of disinfection. The process is an agglomeration process for removing colloidal suspensions from a liquid and the gas produced by electrolysis aids in washing off the agglomerated materials from the conductors.

With regard to Witt, there is no mention of disinfection.

Claim 1 as amended is therefore not obvious over the prior art of record. Claims 2 – 4, 24 – 31 and 45 – 48 are dependent, directly or indirectly, from claim 1 and include all the limitations of the independent claim as amended. For at least these reasons, claims 2 – 4, 24 – 31 and 45 – 48 are also not obvious over the prior art of record.

Remarks regarding new claims 49 - 59

New claims 49 – 59 are system claims in which the claimed method is used. Claim 49 includes the same limitations as claim 1 as amended. Therefore all of the remarks given above for claim 1 as amended with respect to the prior art of record are applicable to claim 49 and its dependent claims.

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Should the Examiner have any question or comment as to the form, content or entry of this Amendment, the Examiner is requested to contact the undersigned at the telephone number below. Similarly, if there are any further issues yet to be resolved to advance the prosecution of this application to issue, the Examiner is requested to telephone the undersigned counsel.

Respectfully submitted,

/Miriam Paton, Reg. #56623/

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